

Proposition 13: The Predictive Power of Demographics in Direct Democracy

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**Proposition 13: The Predictive Power of Demographics in
Direct Democracy**

By

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Economics

**PROPOSITION 13: THE PREDICTIVE POWER OF DEMOGRAPHICS IN
DIRECT DEMOCRACY**

Abstract

Proposition 13 revolutionized local politics in California when it stated that any future increase in taxes or tax rates would require a vote of two-thirds of the electors in any given local jurisdiction. Since California is the sixth largest economy in the world and exhibits tremendous economic and demographic variation, this study seeks to determine what characteristics of a county can be used to predict whether or not a local ballot initiative will pass. In addition, this study attempts to determine whether there is a distinction between the predictive value of demographic variables for transportation, education, safety, and facilities initiatives.

This report reveals that greater wealth within a county is associated with a greater likelihood of an initiative passing, although at a decreasing rate. The data also suggests that a greater percentage of nonwhites in a county is correlated with an initiative passing. In counties with larger elderly populations, initiatives are less likely to pass. Furthermore, the data indicates that the impact of demographics varies for transportation, education, safety, and facilities initiatives.

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I. Introduction

Passed in 1978, Proposition 13 sought to limit rapidly increasing property taxes and give voters greater control over government finances via the ballot box. At the same time, as a result of this proposition California gained national attention as a pioneer in direct democracy and other states began to take a closer look at direct voter control. Proposition 13 states that “the maximum amount of any ad valorem tax on real property should not exceed 1% of the full cash value of such properties.” In Section 4 it states, “Cities, counties, and special districts, by a two-thirds vote of the qualified electors of such district, may impose special taxes on such districts, except ad valorem taxes on real property” (Rabushka, 1982, appendix A).

What are the factors that led to the approval of Proposition 13?

In many ways, Proposition 13 offered a means for Californians to vocalize their concerns about an era of tax growth that had begun in the post-Depression period. Seeing a rapidly growing welfare state, voters wanted control over taxation, especially the taxation of property. According to Rabushka, “The growth of the welfare state since the Great Depression and the development of a massive array of non-defense government spending programs over the past three decades has brought overall taxation to about 40% of personal income” (1982, p. 5).

Inflation also became a concern in California, as the average inflation rate between 1970 and 1978 was 6.7 percent (Rabushka, 1982, p. 7). Rising inflation translated to higher property taxes and increasing state taxes overall. According to Sears and Citrin, “prices for single-family homes in the San Francisco area grew by an annual

rate of approximately 18 percent between 1973 and 1978 (1982, p. 22). In addition, the public viewed inflation as an issue of great concern; at the time, controlling inflation polled as the number one national priority (Rabushka, 1982, p. 7).

In California inflation resulted in individuals being grouped into higher tax brackets through the national progressive tax system, and a phenomenon known as "bracket creep" plagued Californians. Although, for many, income was rising with inflation, income was also taxed at a higher rate and purchasing power was diminished (Rabushka, 1982, p. 8). In other words, even as individuals were being taxed at a higher rate, their take-home incomes had less purchasing power. This was further complicated by the fact that personal tax exemptions did not keep pace with rising inflation. As Rabushka notes, this meant that, "bracket creep thus [raised] taxes without direct increases in the tax rate schedules" (1982, p. 8). Californians reacted strongly against the continually increasing income tax rates that began setting in after 1965. Californians were not only subject to bracket creep, but "residents of the Golden State were paying 1/3 more in state and local taxes as a share of personal income than were the residents of the other 49 states" (Rabushka, 1982, p. 9). It became apparent to many that the government was not going to be responsive to the erosion of purchasing power or to bracket creep.

The growth of the government between 1973 and 1977 was an additional factor behind the drafting of Proposition 13. Between these years, government "expenditure in California grew by an average of 11.2 percent a year, and the state spent more than the national norm for both the widely popular fire and police services and the much-despised welfare programs" (Sears and Citrin, 1982, p. 23). Additionally, employment in the public sector was outpacing job growth in the private sector (Sears and Citrin, 1982, p.

23). Thus, while voters were supportive of safety revenue initiatives, there was a tremendous backlash against the encroachment of welfare programs on their personal wealth, programs which many voters felt did not benefit them directly. As a result, California experienced an ideological shift with respect to government services. A growing concern emerged that the government was becoming both inefficient and wasteful. According to Rabushka, “the percentage of people who said that the government wastes much of our tax money rose substantially, from 48 percent in 1964 to 74 percent in 1978” (Rabushka, 1982, p. 11).

Proposition 13 passed by a 2 to 1 margin. Despite the popularity of the initiative, there were many campaigns against Proposition 13 both on its own grounds and on the grounds that it offered too much control over finances to the public. Educators and police, for example, feared that direct voter control over state fiscal policy would dramatically undermine their funding. Educators, represented by the 35,000 member California Federation of Teachers, predicted massive public school closings (Rabushka, 1982, p. 25). Firefighters also feared funding cuts: “In some fire districts,” it was claimed, “up to half of the fire stations might be closed due to lack of funds” (Rabushka, 1982, p. 25). Many also feared that Proposition 13 would work against historically disadvantaged groups since demonstrated that wealthier populations could utilize the ballot boxes to control program funding for ethnic minorities.

In retrospect, it is worth asking whether these fears became a reality after Proposition 13 was passed. Kim Rueben and Pedro Cerdán, in “Fiscal Effects of Voter Approval Requirements on Local Governments,” suggest that there is not much evidence pointing to schools closing or safety programs being drastically scaled back. Rueben and

Cerdán also note that “following Proposition 13, own-source revenues fell dramatically in California. By 1997, approximately 45 percent of California’s local government funds came from another level of government” (2003, p. 14). With funding coming from other sources, California’s programs were not dissolved even as much of the financial support necessary to continue these programs would no longer be raised at the local level. The decrease of own-source revenue in counties was especially evident in education:

“California school districts went from having 55 percent of funds from local sources to having a little over one-third whereas own-source revenues in school districts in other states fell only from 54 to 46 percent” (Rueben and Cerdán, 2003, p. 17).

Despite doomsday predictions about the effects of Proposition 13, many of the fears centered on education did not materialize. In fact, employment cuts in the public school system were moderated after the passage of Proposition 13: “Of [pre-Prop 13 layoffs] 11,708 were school district employees; in one month’s time, school districts had rehired over 2,000 laid off employees” (Rabushka, 1982, p. 80). Moreover, California experienced an economic boom in the post-Proposition 13 era, and California’s unemployment rate dropped from 7.4 percent to 6.7 percent between September and October of 1978 (Rabushka, 1982, p. 80).

Goals of the Study

As some studies show that voters were willing to approve new funding sources, this report will explore the question of which factors that determine which ballot initiatives voters tend to approve. What demographic characteristics of a county can be used to predict whether a local ballot initiative will pass or not? Is there a distinction

between the predictive value of demographics variables in votes on transportation, education, safety, and facilities initiatives? These questions can be answered by examining ballot initiatives and their success rates across California's 58 counties from 1995 to 2003.

This report may help to predict future local ballot initiatives in California. For example, this report may conclude that the given characteristics of Sacramento County are correlated with a high passage rate for transportation initiatives. Assuming that Sacramento's demographic characteristics remain the same in the future, the success rate of future transportation initiatives can be assessed. This report may also be of value to other states initiating direct democracy systems. After California, for example, Oregon experienced a similar tax revolt through its initiative system. This analysis may prove useful in assessing which counties are likely to approve tax initiatives in states other than California. However, political attitudes towards taxes and government spending may vary from state to state. Therefore, this report should serve as a guideline and not as a hard-and-fast rule.

II. Review of Existing Literature

The two major works that analyze the characteristics that affect the passage of California propositions come from the Public Policy Institute of California: "Fiscal Effects of Voter Approval Requirements on Local Governments" by Kim S. Rueben and Pedro Cerdán (2003) and "Are There Winners and Losers? Race, Ethnicity, and California's Initiative Process" by Zoltan Hajnal and Hugh Louch (2001). Rueben and Cerdán's paper analyzed the relationship between local and state

governments that resulted from Proposition 13, focusing on government's greater dependence on state funds. These authors showed that following the passage of Proposition 13 voters in many areas approved new tax measures; however, underfunding in other areas of the state led to the state "bailing out" local governments: "Although voters are playing an increasingly important role in fiscal decision-making process, they are willing to approve new funding sources... However, voter preferences may leave some traditional government services inadequately funded" (Rueben and Cerdán, 2003, p. xii). Rueben and Cerdán examined the descriptive power of city demographics in bond elections for education, showing that "Income was highest for districts that successfully passed a bond measure and lowest for districts that proposed but did not pass a bond" (2003, p. 29). They also quantified the effect of a lower-than-state-average household income on the passage rates of education bonds: "Changing the average household income in a district from the state average (\$40,754) to a lower level (\$32, 712) also diminishes the chances of passing a measure from 42 to 40 percent" (2003, p. 35). Analyzing the effect of demographics on tax measures, these authors showed that cities with higher incomes were more likely to pass a new tax measure than lower income cities (Rueben and Cerdán, 2003, p. 60). These authors concluded that income is an important variable in both bond and tax measures, and that race correlates with this rule, as "cities that passed new taxes had a lower percentage of nonwhite households than those that were not successful at raising new funds" (2003, p. 60).

The second paper, "Are There Winners and Losers?: Race, Ethnicity, and California's Ballot Initiative Process" (Hajnal and Louch, 2001) addressed the effects of Proposition 13 on racial and ethnic groups. Inspiring this research was that fact that in

several scenarios racial minorities were at a severe disadvantage since non-Hispanic whites made up two-thirds of the voters in local initiative elections (Hajnal and Louch, 2001, p. v). Despite the fact that California is the first large minority-majority state—meaning that the white population makes up less than 50 percent of the state—whites make up more than 68 percent of registered voters. Hajnal and Louch’s paper sought to answer the question of to what degree racial minority’s interests were being undermined as a result of direct democracy and to what extent “the white majority dominate[s] outcomes at the expense of blacks, Latinos, and Asian Americans” (2001, p. 5).

This study, focusing on initiatives that directly affected Latinos, blacks, and Asian-Americans, attempted to assess racial trends in direct democracy: “To measure interests and outcomes in direct democracy,” the authors gathered data from a series of 17 Los Angeles Times exit polls that queried voters on 45 initiatives between 1978 and 2000” (2001, p. vi). Such Propositions as 187—the “Save Our State” initiative—were viewed by many as an attack on the Latino community intended to “deny public education, social services, and health services to illegal aliens” (Hajnal and Louch, 2001, p. 18). The Latino community strongly opposed the initiative, with 80 percent of Latinos voting “no” along with 53 percent of black and Asian-American voters. As Hajnal and Louch note, however, “strong white support (63 percent in favor) overwhelmed the minority vote, and the initiative passed” (2001, p. 19).

Based on their research overall, Hajnal and Louch concluded that there is no major bias against particular ethnic groups despite the fact that in many elections the results for initiatives contrasted with how certain ethnic communities voted:

White voters, who are the most successful racial or ethnic group, have a 62 percent probability of voting for the winning side. Asian Americans fall in the middle, with a 60 percent probability of voting for the winning side. The average Latino and black voters fared marginally worse—voting for the winning side roughly 59 percent of the time. (2001, p. 28)

Thus, by examining a set of ballot initiatives, Hajnal and Louch determined that the percent probability of voting for the winning side is relatively close among the ethnic groups studied, with slightly lower numbers for Latino and black voters. However, Hajnal and Louch also found that ethnic groups were generally divided over which initiatives to support (2001 p. 62). Often, black voters did not side with Asian-American or Latino voters, and vice-versa. Complicating matters further, these researchers raised an important issue in noting that smaller ethnic communities exist within broad racial groupings. For example, Philippino-American voters may be opposed to an initiative that Chinese-American voters support.

Grounded in and expanding on this existing literature, this report analyzes the correlation of local demographics to the probability of transportation, education, facilities, and safety initiatives passing. While previous reports have looked at the general predictive value of demographics, this report will focus more closely on the types of initiatives that demographic variables predict. For example, does overall age affect the probability of an education initiative passing more than the probability of transportation measure passing? Essentially, this report extends Rueben and Cerdán's analysis of education measures and demographics to three other major revenue initiative categories. While Rueben and Cerdán found that income was an important factor in education bond

elections, this paper will analyze the importance of income and other factors in transportation, facilities, and safety initiatives. Further, this will extend Rueben and Cerdán's data through to 2003. The descriptive power of the race variable will also be more specific. In consideration of Hajnal and Louch's finding that support for initiatives varied across ethnic minority lines, this report will more specifically at the descriptive power of the percentage of Latinos, blacks, and Asian-Americans rather than looking only at percent of nonwhite households.

Hajnal and Louch's paper sought to discover the degree of bias involved in California's initiative process and for that reason restricted the authors restricted their analysis to particular policy initiatives. This study will instead look at trends among revenue initiatives. Hajnal and Louch studied 45 minority-related initiatives from 1978-2000. This report will examine all initiatives in the categories of education, transportation, safety, and facilities.

III. Methodology

The econometric analysis will involve ballot initiative data obtained from the California Elections Data Archive (CEDA), a central repository of local election data compiled by the Center for California Studies and the Institute of Social Research. CEDA data includes ballot initiative results from county, city, community college, and school district elections. Data is summarized by year and is available from 1995 to 2003.

Demographic data was obtained from *Community Sourcebook of America*, in which data is organized by California's 58 counties based on 2000 census information for age, race, and income. Although the particular demographic values for each year (from

1995-2003) may have resulted in more accurate predictive powers, this tactic was avoided due to the potential for multicollinearity. For example, the percentage of Latinos in Alameda in 1999 is likely to be strongly correlated with the percentage of Latinos in 2000, and such correlations could pose a threat to the internal validity of the study. Furthermore, demographic values for each year would likely be based on projections from the 1990 and 2000 census. The accuracy of these projections could be called into question.

The analysis is limited in scope to education, safety, transportation, and facilities initiatives. These four categories were chosen because they deal with taxes directed to the funding of public goods and services in which constituents will likely have an interest. This report assumes that when voters go to the ballot box they decide whether or not to vote for particular initiatives based on the areas from which they feel that they are most likely to benefit. The education initiatives analyzed include those referenda related to school renovations, construction, and technology. The broader “safety” category includes initiatives related to jails/courts, police, fire, multiple emergency services, emergency medical/paramedic, firearms, and civil fines/criminal penalties. Transportation propositions include initiatives related to mass transit, roads, traffic regulation/reduction, and agency funding. Finally, facilities initiatives involve libraries, health facilities, museum/cultural/community centers, public works, zoos, sports facilities, convention centers, parks and recreation, and jails/courts.

This study incorporates a logistic regression model similar to the probit model based on a maximum likelihood estimation and involving an “S-shaped” distribution that constrains the estimated probabilities between zero and one. The logistic regression (or

logit model) uses maximum likelihood estimation. To ensure consistency, probit regressions were also run on the data sets. The linear regression model was avoided because yielded values in this model can be greater than 1 or less than 0, making results difficult to interpret.

The binary dependent variable corresponds to the probability of an initiative passing, with a value of one if it passes and zero if it fails to pass. The independent variables include race, age, and income, and the logistic regression will model the probability of an initiative passing as a function of these variables.

$$Pr(\text{transportation pass} = 1 / \text{age, race, income}) = \frac{1}{1 + e^{-(B_0 + B_1 \%black + B_2 \%Asian + B_3 Hispanic + B_4 Median Household Income + B_5 \%Age 65-84)}}$$

In the example above, the logistic regression model will find the probability of a transportation initiative passing as a function of the explanatory variables of age, race, and income. Similar models will be used for the other three categories (education, facilities, and safety). The age variable included the percentage of the population for each county between the ages of 65-84. This variable has been included in other models because elderly voters may have different interests than younger voters. Breakdowns by the younger age categories were also included in the regressions. Those with higher than median incomes are generally thought to be opposed to tax increases while lower income voters may be more inclined to vote in their favor. For the variable of race, the percentage of blacks, Latinos, and Asian-Americans in each county was chosen rather than a dummy

variable. As suggested earlier, race variables are of particular interest because California is the only minority majority state, meaning that “nonwhites” compose more than 50% of the state. A complete table of all of the demographics variables used in this analysis can be found in Appendix Table 1.

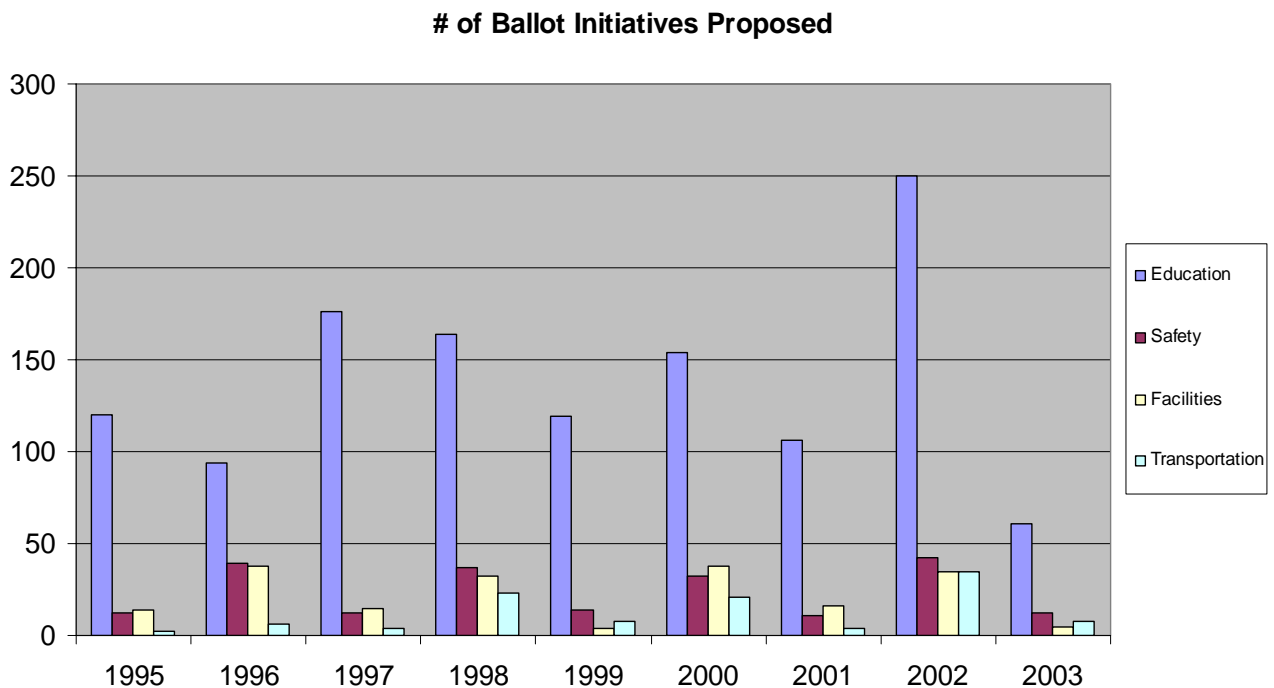
What if age and income level combined affect the probability of an initiative passing? Does race affect the probability of an initiative passing at different income levels? This report will attempt to answer these questions through the application of interaction terms. For example, (age * income) and (race * income) are two potential interaction terms that will be included in the logistic regression analysis. The research is unique in that it will attempt to quantify levels of interaction between variables and to draw conclusions about whether these interactions have explanatory power. For example, does the combined effect of age and income have greater explanatory power in the passing of an education initiative or a safety initiative?

One potential problem related to the data is the problem of internal validity. A potential sample selection bias exists since not all voters will cast their ballots on every issue. Certain voters, for instance, may only vote about education measures while declining to vote on safety initiatives.

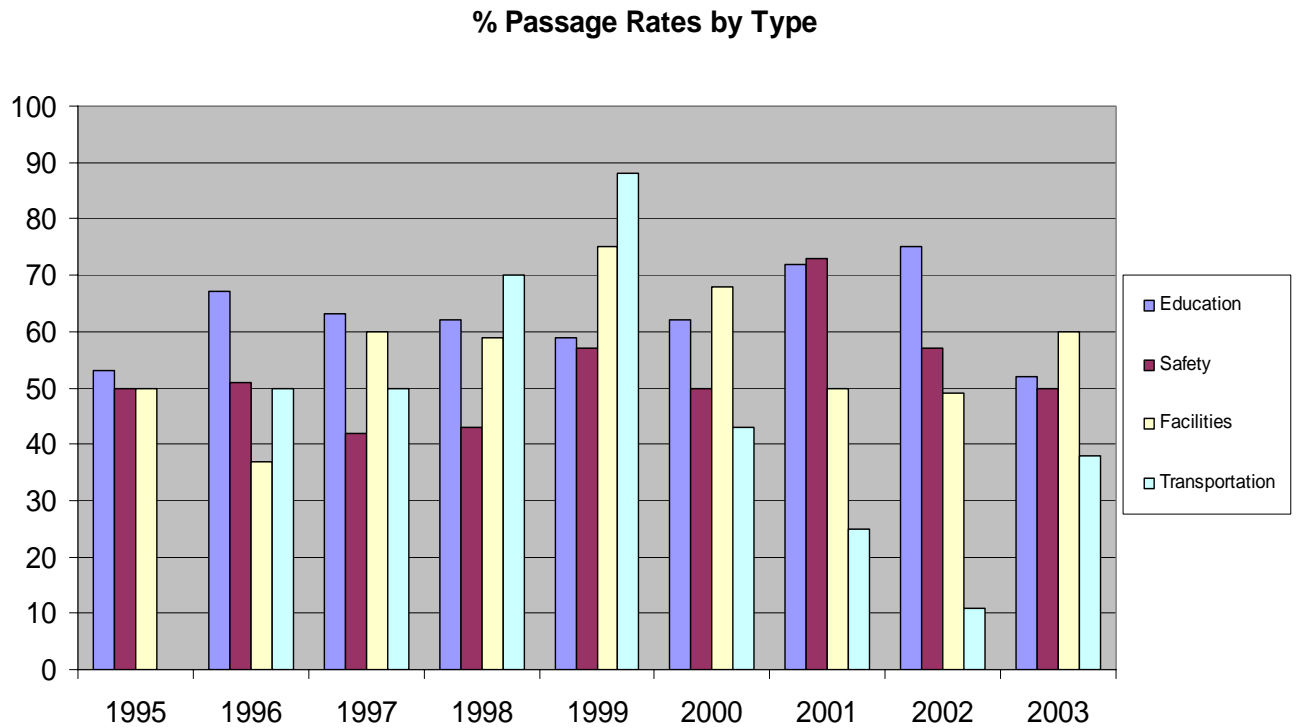
The variables that were accounted for in the referendum data include county number, jurisdiction, typecode, and passfail. The county number is a numerical value assigned to each of California’s 58 counties. The jurisdiction variable distinguishes between county, city, and school district. For the purpose of analytical clarity, a dummy variable of one was assigned for those referenda proposed at the county and city levels while those proposals at the school district received a value of zero. “Typecode” is a

numeric code designated for the type of referendum. This was used to distinguish between transportation, safety, facilities, and education initiatives.

IV. Preliminary Results



The preliminary results include an aggregate picture of revenue initiatives by year and by type. This chart includes all of the revenue initiatives proposed from 1995 to 2003. Education initiatives are proposed more often than initiatives in the other four categories. There are no clear trends indicating whether safety, facilities, or transportation initiatives are most likely to be proposed. Moreover, even-numbered years (such as 1996, 1998, 2000) contain more of revenue initiatives since they are years in which candidate elections were held.



This chart shows, by year and type, the rates at which initiatives proposed were passed. Education initiatives from 1995 to 2003 have had more than a 50 percent success rate for each year. While these preliminary results indicate the number proposed and percent passed for individual categories, the research to follow will attempt to analyze characteristics that determine the probability of an initiative passing. Separate logistic regressions were run for each referendum as well as logistic regressions for each referendum category.

V. Regression Results

Transportation

Results for the transportation category are summarized in *Appendix Table 2*. The regression included 92 observations. With respect to race, the percentage of Hispanics is statistically significant at 1% and has a positive coefficient. This outcome suggests that an increase in the percentage of Hispanics in a particular county is associated with an increase in the likelihood of a transportation referendum passing. The percentage of blacks and Asians are near significant; however, one cannot say that these variables are definitely correlated the probability of an initiative passing. The age groups 25-44 and 65-84 are also statistically significant. This regression indicates that the coefficient becomes increasingly negative as age increases, showing that the likelihood of an initiative passing falls among older citizens. Median household income is significant and positively correlated with the probability of a transportation initiative passing.

What is the economic significance of these results? To answer this question, this model predicted the probability of a transportation referendum passing given the median values for % black (2.2), % Asian (3.3), % Hispanic (17.65), age (35.9), and household income (\$46, 273). These median values were based on median values across counties. For ease of interpretation, median age—a statistically significant variable—was used as opposed to percent breakdown by age bracket. Given the median values for age, race, and income, the predicted probability of a transportation initiative passing is 41.2%. Also, increasing the median household income by \$10,000 is associated with an increase in the projected probability of the initiative passing. Meanwhile, the greater the increase in

median age, the less likely the transportation initiative was to pass. With a median age of 65, this probability fell to 27.2%.

Safety

Results for the safety category are summarized in *Appendix Table 3*. The Asian and Hispanic variables are statistically significant and are positively correlated with the probability of a safety initiative passing. In fact, percent Hispanic is significant at the one percent level. The age groups 15-19 and 25-44 were also significant. The 15-19 group yielded a considerably larger negative coefficient than the 25-44 group. Unlike in transportation, median household income is negatively correlated with the probability of a referendum passing; however, the coefficient is quite small.

With respect to economic variables, given the same median values for race, age, and income, the predicted probability of a safety initiative passing is 45.9%—4.7% higher than the probability for transportation initiatives. This is possibly a result of the greater likelihood that constituents across categories see initiatives pertaining to police and fire services as necessary and beneficial. By contrast, transportation initiatives may only benefit particular segments of the population. Since most of the transportation referenda were related to public transportation, voters who drive may be less likely to vote in favor of them. The slightly negative coefficient for median household income may suggest that wealthier segments of the population may live in safer, often gated neighborhoods where dependence on police and public safety services is reduced.

Facilities

Results for the facilities category are summarized in *Appendix Table 4*. Unlike the previous regressions, the percentage of both blacks and Asians in a county was

statistically significant and positively correlated with a facilities referendum passing. The percentage of Hispanics, however, is not significant. Age follows a similar trend in this category as in the others, but here the age bracket 65-84 is more strongly correlated with an initiative failing. This suggests that the elderly may be less likely to use public goods such as parks, zoos, and sports facilities and thus are less likely to vote in favor of facilities proposals. Median household income is once again significant and has a negative coefficient, although the coefficient suggests that income does not have a strong negative impact on facilities referenda.

With respect to economic significance, the probability of a facilities initiative passing given the median values is 39.8%. This percentage is lower for facilities than for both safety and transportation. Several possible reasons may explain why this is the case. Facilities initiatives include a wide array of construction projects. As a result, the voter may only decide to vote on initiatives in this category that he or she regards as important. In contrast, safety, which had the highest projected probability of passing, may be seen by the majority of voters as beneficial. Thus, safety initiatives may be more likely to receive the required two-thirds majority vote required for initiatives that affect future taxes.

Education

The results of the regression analysis pertaining to education initiatives are summarized in *Appendix Table 5*. For this category, none of the demographic variables were statistically significant. Several different regressions were applied. One of the regressions, for example, included the standard variables for age, race, and income with the addition of variables for number of families and average household size. The number

of families was near significant, but conclusive evidence cannot be drawn from this result. The exact meaning of the term “number of families” is a bit unclear. Families could include children older than 18 who no longer benefit from public schools. With this in mind, a regression analysis was run using a variable of the percent of the population less than 18. This did not yield a statistically significant result.

There are two possible explanations for why demographics did not turn out to be significant for education initiatives. First, education initiatives benefit a narrower segment of society (those with children) and as a result the interest group is smaller. Second, education is the category with the greatest number of observations (1213) and thus there is likely to be a greater variety of subjects that the initiatives in this category address.

In order to examine more closely the impact of income on the probability of an initiative passing, a regression was run on all initiatives from the four categories. The results from this regression analysis are summarized in *Appendix Table 6*. It turned out that all income values were significant or near significant. This would seem to reflect the overall trend that a greater concentration of people with incomes between \$50,000 and \$100,000 is associated with the highest probability of an initiative passing. This number decreases slightly in the highest income brackets, perhaps as a result of California’s highly progressive tax system. Individuals in the highest income bracket may be less likely to vote in favor of a ballot initiative because they recognize that they will be taxed at a higher rate for an initiative that they may not benefit from.

Also, with all referenda included, an increase in median household income increases the probability of an initiative passing by 3.2% (from .6601 to .692). However,

when income increases by \$50,000, this probability fell to 68.3%. This is consistent with the regression indicating that members of a higher income bracket are less likely to vote in favor of a referendum than members in lower brackets. An increase in median age by ten years increases the probability of an initiative passing by 4.8% (from .662 to .710). Meanwhile, a five percent increase in the percentage of nonwhites increases the probability of an initiative passing by 3.8% (from .642 to .681).

VI. Summary of Results

The purpose of this study was to determine what characteristics of a county can be used to predict whether a local ballot initiative will pass. It also sought to discover whether there is a distinction between the predictive value of demographics variables with regard to transportation, education, safety, and facilities.

By means of a logistic regression, this study determined that age, race, and income were often very good predictors of the likelihood of an initiative passing. Moreover, the levels of significance for these variables did indeed vary across the different categories. Often, the magnitude of these variables also varied across categories.

Summarizing the econometric results, the variable “percent black” was only statistically significant in facilities initiatives, where it increased the probability of an initiative passing. “Percent Hispanic” was significant in transportation and safety initiatives. “Percent Asian” was significant and positively correlated with the probability of a facilities initiative passing. The variable “percent white” was never statistically significant. Determining why certain racial groups tend to support certain types of

initiatives requires further investigation beyond the scope of this study. As seen in Hajnal and Louch's study, exit polls may be a good method for addressing this question.

This research also showed that there are some definite trends correlating age and the probability of an initiative passing or failing. The age group 65-84 was more likely to vote "no" on ballot initiatives than younger voters. As noted, this negative correlation was greatest in facilities initiatives. Median household income was positively correlated with transportation initiatives but negatively correlated with facilities and safety initiatives, although with small coefficients.

Income was consistently a good predictor of an initiative's success or failure. The lowest income bracket (<\$25,000) was more positively correlated with an initiative passing than the \$25,000-\$50,000 bracket. Voters with incomes above \$150,000 are less likely to vote "yes" on ballot initiatives.

With regard to future policy considerations, the data suggests that greater wealth in a county is associated with a greater likelihood of an initiative passing, although at a decreasing rate. Also, a greater percentage of nonwhites in a county is correlated with an initiative passing, although this varies depending upon the type of the initiative. Finally, in counties with a larger elderly population, initiatives are less likely to pass, particularly for construction and renovation of facilities.

With regard to education initiatives, demographics did not have a predictive value.

VII. Policy Considerations

Research on California's referendum process will become increasingly significant as California politics comes to depend more on the ballot box. Recently there has been a

new trend of lobbying local voters to support referenda. For example, in Fresno, a cultural group pushed for an initiative to increase the sales tax by one-tenth of one cent to support community arts groups (Schrag, p. 5). Governor Arnold Schwarzenegger, meanwhile, is pushing forward an initiative to rezone districts. After failing to get approval in the legislature, he is threatening to take the initiative to voters by referendum. While many were apprehensive about the ability to pass legislation via the ballot box prior to Proposition 13, it is proving to be an effective tool.

While the findings of this study do not suggest the presence of hard-and fast rules, as voters will likely determine their approval on an issue-to-issue basis, these numbers do suggest the probabilities of certain types of initiatives passing given the demographic values of various counties, and statistical models used to draw these results can be used to predict the likelihood of an initiative passing given the demographics of each county.

In terms of future policy considerations, the data suggests that greater wealth in a county is associated with a greater likelihood of passing, although at a decreasing rate. Also, a greater percentage of nonwhites in a county is correlated with an initiative passing, although this varies with the type of the initiative. Finally, in counties with greater percentages of the elderly population, initiatives are less likely to pass and this is particularly true for construction and renovation of facilities.

Table 1

Demographics Variables

- Race- % White, % black, % Asian, % Hispanic
- Age- Median Age, % Age 0-5, 5-10, 10-15, 15-19, 20-24, 25-44, 45-64, 65-84, 85+
- Income- Median household income, Per capita income, % of households with income: less than 25K, 25K-50K, 50K-100K, 100K-150K, 150K+, Owner occupied household value.
- Other variables- # of households, average household size, # of families

Appendix Table 2

Transportation Results

Pr(pass=1); 92	*=.1 **=.05 ***=.01
% Black	.200* (.10825)
% Hispanic	.140*** (.04914)
% Asian	-.209* (.10972)
% Age 15-19	-.453 (.64592)
% Age 25-44	-.546** (.25500)
% Age 45-64	.035 (.14552)
%Age 65-84	-.753** (.14552)
Med HH Income	.0002237** (.0001)

Appendix Table 3

Safety Results

Regressor	Dependent Variable: pass=1, if fail= 0 251 observation
% Black	-.133 (.100)
% Asian	.169** (.076)
% Hispanic	.085*** (.029)
% Age 15-19	-1.558*** (.599)
% Age 25-44	-.371** (.163)
% Age 45-64	-.009 (.120)
% Age 65-84	-.456* (.264)
Median Household Income	-.001** (.000032)

Appendix Table 4

Facilities Results

Regressor	Dependent Variable: pass=1, if fail= 0 240 observations
% Black	.218** (.107)
% Asian	.172** (.086)
% Hispanic	-.002 (.040)
% Age 15-19	-1.544 (1.292)
% Age 25-44	-.544** (.243)
% Age 45-64	-.069 (.124)
% Age 65-84	-1.703** (.729)
Median Household Income	-.0003*** (.0001)

Appendix Table 5

Education Results

Regressor	Dependent Variable: pass=1, if fail= 0 1213 observation
% Black	.139 (.124)
% Asian	-.040 (.087)
% Hispanic	-.030 (.034)
% Age 5-10	.436 (.851)
% Age 10-15	-.139 (.893)
% Age 15-19	.854 (.645)
% Age 25-44	.254 (.238)
% Age 45-64	-.007 (.111)
% Age 65-84	.467 (.315)
Median household income	.0000349 (.000033)

Appendix Table 6

Regression with all ballot initiatives

Regressor	Dependent Variable: pass =1, if fail= 0 1796 Observations
% households with less than 25K	.739** (.321)
% HHs 25K-50K	.459* (.241)
% HHs 50K-100K	1.186*** (.454)
% HHs 150K+	.969** (.427)

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